

Atty Dkt. No.: 10004032-1
USSN: 09/775,375

REMARKS

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 1-21, as well as newly added Claims 32 and 33, the only claims pending in this application.

Claims 32 and 33 find support in the specification at paragraph 19. Accordingly, these claims introduce no new matter to the application and their entry by the Examiner is respectfully requested.

Applicants acknowledge with gratitude the statement by the Examiner that Claim 9 would be allowable if written in independent form.

Claim Rejections - 35 USC § 103

The Office Action states that Claims 1 – 8 and 10 - 21 are rejected under 35 U.S.C. § 103(a) as being obvious over Besemer et al. (US 6,140,044) in view of Runyon et al. (US 5,101,975).

In making this rejection, the Examiner asserts that Besemer et al. teach packaging of microarrays in a housing in which space is left around the chip. The housing contains ports for introducing fluids into and removing fluids from this space for the purpose of contacting the microarray with a desired composition (e.g., targets in a test sample and/or wash solutions). However, the Examiner acknowledges that Besemer et al. does not teach multiple microarrays in pockets of a multiple-pocket strip in which each microarray is sealed in its pocket with a cover strip. To overcome this deficiency, the Examiner cites Runyon et al. which teaches an electronic component carrier that can be in the form of a strip or sheet. The strip can contain holes on the sides of the carrier that allow for positioning of the strip using a mechanical positioning system. The Examiner states that it would have been obvious to combine the bulk carrier of Runyon et al. with the teachings of Besemer et al. in order to provide the individual chips of Besemer et al. in individual packages in a bulk package as taught by Runyon et al.

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With regard to obviousness-type rejections, MPEP § 2142 states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In view of the above, the Applicants respectfully submit that the obviousness rejection presented by the Examiner fails to meet the first criteria listed above. Specifically, the Applicants have been unable to find any suggestion or motivation, either expressly or inherently, to combine the cited prior art. As such, the Applicants submit that the Examiner has relied upon impermissible hindsight in rejecting the claimed invention.

With regard to impermissible hindsight, the Applicants wish to direct the Examiner to MPEP § 2143.01 which states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In addition, MPEP § 2143.01 states that:

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000)

Because there exists no suggestion or motivation to combine the cited prior art, the Applicants submit that the Examiner has used the Applicant's own disclosure as a motivation to force grounds of rejection in this case. Specifically, none of the references cited and applied by the Examiner make any suggestion of packaging and sealing microarrays in a pocket of a multiple-pocket strip as claimed in the subject invention. For a justifiable rejection under 35 U.S.C. § 103(a) to be made,

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the invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time, *see Interconnecting Planning Corp. v. Feil*, 774 F.2d 1132, 1138. In other words, combining (or modifying) prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability. This is the essence of impermissible hindsight, *see In re Dembiczak*, 50 U.S.P.Q.2D 1614.

With regard to obviousness-type rejections, MPEP § 2141 states (under "BASIC CONSIDERATIONS WHICH APPLY TO OBVIOUSNESS REJECTIONS"):

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

Looking solely to the references cited by the Examiner, one of skill in the art would not combine these references because no teaching or suggestion can be found in the references to support the combination.

Further supporting the above conclusion that there is no motivation to combine the references is that the references are in disparate fields, and therefore not properly combinable.

With regard to the appropriateness of combining references, MPEP § 2141.01 (a) states:

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the

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inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

The Applicants submit that Runyon et al. as been improperly combined with Besemer et al. because Runyon et al. is not in the field of the Applicants' endeavor and is not reasonably pertinent to the particular problem that is the concern of the invention. Firstly, the field of the Applicants' endeavor is microarrays that are employed in the research and medical fields. Runyon et al. is concerned with packaging electronic devices and as such is not the field of Applicants' endeavor. Secondly, the problem to which the invention is directed is the "need for a more economical packaging method and system for microarrays with features that facilitate automated processing and handling of microarrays" (last sentence of the Background section). Part of the solution to this need is to provide sealed chambers for each microarray in the multiple-pocket strip that can accept and hold fluids (or gasses) without leaking. Runyon et al. does not in any way teach a chamber having sealed compartments that provide such functionality. As such, Runyon et al. is not reasonably pertinent to the particular problem being solved by the invention. As such, Runyon et al. is not properly combinable with Besemer et al.

Accordingly, in making the rejection of the claims over Besemer et al. in view of Runyon et al., the Examiner has improperly combined these references, there being no motivation or suggestion to do so and the two references being from unrelated fields. Accordingly, for this reason alone, the Examiner has failed to present a proper *prima facie* case of obviousness and the rejection may be withdrawn.

However, even if the references have been properly combined, a proper combination of the teachings of the references fails to teach or suggest all of the elements of the claimed invention.

The subject application claims a multi-pocket strip, each pocket of the strip containing a microarray, and a cover strip which is bonded to the multi-pocket strip such that each microarray is in a **sealed** chamber. A feature of the claims is that the sealed chamber is the product of the cover strip and the pocket strip.

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The Applicants submit that an objective combination of Besemer et al. and Runyon et al. would result in an invention in which the entire rigid microarray housing of Besemer et al. is packaged for shipment into the electronic component carrier taught in Runyon et al. This objective combination of Besemer et al. and Runyon et al. clearly does not arrive at the claimed invention and thus does not make it obvious, because the arrays would not be contained in sealed chambers that are the product of the cover and pocket strips.

Put another way, the Applicants point out that in the claimed invention of the subject application, each microarray is packaged into a pocket of a multiple-pocket strip such that each microarray is sealed therein. This feature not only protects the microarray during storage and/or shipment but also creates a suitable reaction chamber in which the microarray can be contacted to a sample (e.g., as is done in standard nucleic acid hybridization assays). However, Runyon et al. do not disclose a carrier chamber that is completely sealed. The carrier in Runyon et al. is specifically designed to protect electrical components during production, storage and shipping, and being completely sealed within the carrier is not one of the elements disclosed as requisite for this function. In addition, the electronic component carrier of Runyon et al. provides no additional functionality with regard to the intended use of the electrical component therein as does the multiple-pocket microarray strip of the claimed invention. **Even if** the disclosed electronic component carrier did provide added functionality for the end user of the component (apart from protection during shipping), submerging the electronic component in fluid is unlikely to be one of them.

As such, the combined teaching of the references fails to teach or suggest all of the elements of the claimed devices, e.g., sealed chambers that are the product of the cover and pocket strips.

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Given the above remarks, the Applicants respectfully request withdrawal of the rejection of Claims 1 - 8 and 10 - 21 under 35 U.S.C. § 103(a).

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CONCLUSION

In view of the remarks above, Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone Dianne Rees at (650) 485-5999. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-1078.

Respectfully submitted,

Date: 12.21.04

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